THE ROLE OF HOST-PLANT ASSOCIATION ON THE GENETIC DIFFERENTIATION OF SYMPATRIC POPULATIONS OF *Aleiodes nolophanae* (Ashmed) (Hymenoptera: Braconidae)

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Research on hymenopteran parasitoids suggest that parasitoids might be specialized in searching for their hosts in particular plant species. If that specialization occurs, genotypic differences among parasitoids specialized in searching for hosts in different crops is expected. The hymenopteran parasitoid *Aleiodes nolophanae*, a parasitoid of green cloverworm (*Plathypena scabra*) populations occurring in soybean and alfalfa, was used to test if host plant differences influence parasitoid genetic differentiation. Wasps were obtained from green cloverworms collected from alfalfa and soybean fields in Maryland. AFLPs were obtained from wasp DNA and analyzed using capillary electrophoresis (ABIPRISM 300 hardware and software) and UPGMA cluster analysis (NTSYS software). We found that wasps collected from green cloverworms feeding on soybean were grouped together in a defined cluster, suggesting the existence of a soybean *A. nolophanae* genotype. The areas from which *A. nolophanae* specimens were collected in this study, presented more cultivated area of soybean than alfalfa. This difference in abundance might be responsible for the soybean genotype found. Current research is analyzing genotypes from wasps collected from places on which the soybean and alfalfa cultivated areas are the same and from places on which there is more alfalfa than soybean cultivated area, to see if the relative abundance of the host plant has an impact in *A. nolophanae* genetic differentiation.

The presence of alfalfa types in the female soybean cluster might be due to soybean type females ovipositing in alfalfa by mistake of by being taken there by wind currents due to the proximity (less than 1 km) between soybean and alfalfa fields. Thus, even though they were soybean type individuals they were misscategorized by being collected in alfalfa.